

09/890,990

=> d ibib abs hitstr 1-3

CAS- 6-7-03

L2 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:441577 CAPLUS

DOCUMENT NUMBER: 133:68919

TITLE: Products comprising trihydroxystilbenes and derivatives thereof and methods for their manufacture and use

INVENTOR(S): He, Kan; Zheng, Qun Yi; Zheng, Bo Lin; Kim, Calvin Hyungchan

PATENT ASSIGNEE(S): Pure World Botanicals, Inc., USA

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000037021	A2	20000629	WO 1999-US30425	19991221
WO 2000037021	A3	20000908		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6361815	B1	20020326	US 1998-217642	19981221
AU 2000023741	A1	20000712	AU 2000-23741	19991221
EP 1140097	A2	20011010	EP 1999-967471	19991221
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

PRIORITY APPLN. INFO.: US 1998-217642 A 19981221
WO 1999-US30425 W 19991221

AB Products including trihydroxystilbenes and glycosylated derivs. thereof are provided. Also provided are compns. contg. these products with an aq. solvent, particularly an alc.-water mixt., and reverse phase chromatog. methods for isolating and purifying the compns. from plant materials. The products have biol. activity, including antitumor activity.

IT **645-49-8D**, cis-Stilbene, trihydroxy and glycosylated trihydroxy derivs.

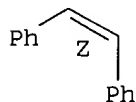
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(trihydroxystilbenes and derivs., isolation, and therapeutic use)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

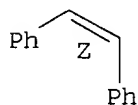


L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS

09/890,990

ACCESSION NUMBER: 1998:117009 CAPLUS
DOCUMENT NUMBER: 128:226050
TITLE: Comparison of the effects of trans-stilbene,
cis-stilbene and stilbestrol on cholesterol
biosynthesis in rat liver
AUTHOR(S): Lapkowska, Henryka; Boguslawski, Wojciech
CORPORATE SOURCE: Dep. General Chem., Med. Univ. Gdansk, Pol.
SOURCE: Endokrynologia Polska (1997), 48(3), 233-236
CODEN: EDPKA2; ISSN: 0423-104X
PUBLISHER: Zarzad Glowny Polskiego Towarzystwa
Endokrynologicznego
DOCUMENT TYPE: Journal
LANGUAGE: English
AB It has been found that trans-stilbene, but not cis-stilbene, inhibits
cholesterol biosynthesis from acetate in rat liver.
IT 645-49-8, cis-Stilbene
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(trans-stilbene, but not cis-stilbene, inhibits cholesterol
biosynthesis in the liver)
RN 645-49-8 CAPLUS
CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L2 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:561395 CAPLUS
DOCUMENT NUMBER: 125:237608
TITLE: Cytotoxicity of a novel biphenolic compound,
bis(2-hydroxy-3-tert-butyl-5-methylphenyl)methane
against human tumor cells in vitro
AUTHOR(S): Choi, Sang Un; Kim, Kwang Hee; Kim, Nam Young; Choi,
Eun Jung; Lee, Chong Ock; Son, Kwang Hee; Kim, Sung
Uk; Bok, Song Hae; Kim, Young Kook
CORPORATE SOURCE: Pharmaceutical Screening Team, Korea Res. Inst. of
Chemical Technology, Taejeon, 305-606, S. Korea
SOURCE: Archives of Pharmacal Research (1996), 19(4), 286-291
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Phenolic compds. are prevalent as toxins or environmental pollutants, but
they are also widely used as drugs for various purpose including
anticancer agent. A novel biphenolic compd., bis(2-hydroxy-3-tert-butyl-5-
methylphenyl)methane (GERI-BP002-A) was isolated from the fermn. broth of
Aspergillus fumigatus F93 previously, and it has revealed cytotoxicity
against human solid tumor cells. Its EDs that cause 50% inhibition of
cell growth in vitro against non-small cell lung cancer cell A549, ovarian
cancer cell SK-OV-3, skin cancer cell SK-MEL-2 and central nerve system
cancer cell XF498 were 8.24, 10.60, 8.83, 9.85 .mu.g/mL resp.
GERI-BP002-A has also revealed cytotoxicity against P-glycoprotein-
expressing human colon cancer cell HCT15 and its multidrug-resistant
subline HCT15/CL02, and its cytotoxicity was not affected by
P-glycoprotein. We have also tested cytotoxicities of structurally

09/890,990

related compds. of GERI-BP002-A such as diphenylmethane, 1,1-bis(3,4-dimethylphenyl)ethane, 2,2-diphenylpropane, 2-benzylpyridine, 3-benzylpyridine, 4,4'-di-tert-butylphenyl, bibenzyl, 2,2'-dimethylbibenzyl, cis-stilbene, trans-stilbene, 3-tert-butyl-4-hydroxy-5-methylphenylsulfide, sulfadiazine and sulfisomidine for studying of structure and activity relation, and from these data we could suppose that hydroxyl group of GERI-BP002-A conducted important role in its cytotoxicity.

IT 645-49-8, cis-Stilbene

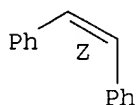
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(cytotoxicity of GERI-BP002-A and related compds. against human tumor cells in vitro)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



=> d his

(FILE 'HOME' ENTERED AT 14:51:17 ON 07 JUN 2003)

FILE 'REGISTRY' ENTERED AT 14:51:32 ON 07 JUN 2003

E STILBENE/CN

L1 1 S CIS-STILBENE/CN

FILE 'CAPLUS' ENTERED AT 14:53:34 ON 07 JUN 2003

L2 3 S L1/THU

=> d l1

YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 645-49-8 REGISTRY

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1,1'-(1,2-ethenediyl)bis-, (Z)-

CN Stilbene, (Z)- (8CI)

OTHER NAMES:

CN (Z)-1,2-Diphenylethene

CN (Z)-1,2-Diphenylethylene

CN (Z)-Stilbene

CN cis-1,2-Diphenylethene

CN cis-1,2-Diphenylethylene

CN cis-Diphenylethene

CN **cis-Stilbene**

CN Isostilbene

FS STEREOSEARCH

MF C14 H12

CI COM

LC STN Files: ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS,

09/890,990

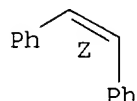
CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DETHERM*,
DIPPR*, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MRCK*, NIOSHTIC,
PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1920 REFERENCES IN FILE CA (1957 TO DATE)

9 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1922 REFERENCES IN FILE CAPLUS (1957 TO DATE)

3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d ibib abs hitstr 1-4

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:875487 CAPLUS

DOCUMENT NUMBER: 136:253909

TITLE: Electrochemical reduction of benzyl iodide, benzal
bromide, and benzal chlorobromide at carbon cathodes
in the presence of **nitric oxide** in
acetonitrile

AUTHOR(S): Ji, Chang; Peters, Dennis G.

CORPORATE SOURCE: Department of Chemistry, Indiana University,
Bloomington, IN, 47405, USA

SOURCE: Journal of Electroanalytical Chemistry (2001),
516(1-2), 39-49

CODEN: JECHE5; ISSN: 0368-1874

PUBLISHER: Elsevier Science S.A.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cyclic voltammetry (CV) and controlled-potential electrolysis have been
employed to investigate the electrochem. redns. of benzyl iodide, benzal
bromide, and benzal chlorobromide at glassy carbon cathodes in the
presence of **nitric oxide** (NO) in acetonitrile contg.
tetramethylammonium tetrafluoroborate. One irreversible cyclic
voltammetric wave, due to cleavage of the carbon-iodine bond, is obsd. for
the redn. of benzyl iodide, whereas cyclic voltammograms for the redns. of
benzal bromide and benzal chlorobromide exhibit two cathodic waves,
arising from sequential cleavage of carbon-halogen bonds. At appropriate
potentials, bulk electrolyses of the three starting compds. involve,
resp., the generation of benzyl, bromophenylmethyl, and chlorophenylmethyl
radicals which can couple with NO, and the products include benzaldehyde
oxime, benzonitrile, and O-benzyl benzaldehyde oxime, as well as toluene,
bibenzyl, and cis- and trans-stilbene. Mechanisms for the formation of
the various products are discussed and, using CV, we have estd. the concn.
of NO in acetonitrile under the extant exptl. conditions.

IT 645-49-8P, cis-Stilbene

RL: CPS (Chemical process); PEP (Physical, engineering or chemical

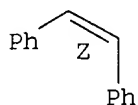
09/890,990

process); PNU (Preparation, unclassified); PREP (Preparation); PROC
(Process)
(formation by electrochem. redn. of benzyl bromide at carbon cathodes
in presence of **nitric oxide** in acetonitrile contg.
Me4NBF4)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:501721 CAPLUS

DOCUMENT NUMBER: 125:167132

TITLE: Selective Oxygen Transfers with Iron(III) Porphyrin
Nitrite

AUTHOR(S): O'Shea, Stephen K.; Wang, Wen; Wade, Ruth S.; Castro,
Charles E.

CORPORATE SOURCE: Environmental Toxicology Graduate Program, University
of California, Riverside, CA, 92521, USA

SOURCE: Journal of Organic Chemistry (1996), 61(18), 6388-6395
CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reaction of octaethylporphyriniron(III) chloride with potassium crown
ether (18-crown-6) nitrite in N-methylpyrrolidone-1% acetic acid under
argon generates the iron(III) nitrite salt (PFeNO₂). The latter is a
unique and selective oxygen atom transfer reagent. The reaction of a
broad range of substrates (S) proceeds quant. to yield the oxidized
substrate and the iron(II) porphyrin-nitrosyl adduct: PFeNO₂ + S → PFeNO + SO.
Diat. mols. to which oxygen is directly transferred from
PFeNO₂ are NO, CO, and O₂. The conversion NO to NO₂ is shown via ¹⁵NO₂-
labeling expts. to proceed exclusively by the O atom transfer process.
The ozone, generated from dioxygen, was trapped with nitrite ion and the
two olefins 2-methyl-2 butene and 2,3-dimethyl-2 butene. These substances
are inert to PFeNO₂ under argon. However, in an oxygen-satd. reaction
mixture, nitrite produced nitrate. The olefins, following redn. of the
reaction mixture with Zn/HOAc, yielded 1 mol of acetone and acetaldehyde and
2 mol of acetone, resp. Other simple O atom transfers under argon were
obsd. with di-Me sulfide and triphenylphosphine. The PFeNO₂ reagent shows
a preference for O insertion into allylic, benzylic, and aldehydic C-H
bonds. Thus, no olefin containing these moieties is epoxidized. However,
styrene and cis-stilbene are converted to styrene oxide and cis-stilbene
oxide, resp. The double oxidn. of allylbenzene to trans-cinnamaldehyde
entails an allylic rearrangement that suggests radical character to the O
insertion process. However, no kinetic evidence for this was obtained.
The reaction is an overall third-order process, rate = k(PFeIII)(NO₂⁻)(S).
There was no correlation of obsd. rates with relevant C-H bond dissociation
energies of substrates. The fastest reacting substrate was **nitric
oxide** (k_{22.degree.} = 52 M⁻² s⁻¹) and the slowest was toluene
(k_{50.degree.} = 6.3 × 10⁻⁴ M⁻² s⁻¹). The range and selectivity of
these O atom transfers sets them apart from the catalytic oxidns. brought
about by reactions of iron(III) porphyrins with peroxides, iodosoaryls,

09/890,990

hypochlorite, and other oxidants. The driving force for the relatively mild oxidns. with PFeNO₂ resides in the thermodyn. stability of the heme-NO adduct. Given the broad presence of nitrite in the environment and the ubiquity of porphyrins in the biosphere, the activation of nitrite by iron porphyrins has both an environmental and biochem. significance.

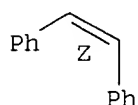
IT 645-49-8, cis-Stilbene

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(kinetics and mechanism of selective oxygen transfers with iron(III) porphyrin nitrite)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:67842 CAPLUS

DOCUMENT NUMBER: 120:67842

TITLE: [Fe(PMA)]_n⁺ (n = 1,2): good models of iron-bleomycins and examples of mononuclear non-heme iron complexes with significant oxygen-activation capabilities

AUTHOR(S): Guajardo, Richard J.; Hudson, Samuel E.; Brown, Steven J.; Mascharak, Pradip K.

CORPORATE SOURCE: Dep. Chem. Biochem., Univ. California, Santa Cruz, CA, 95064, USA

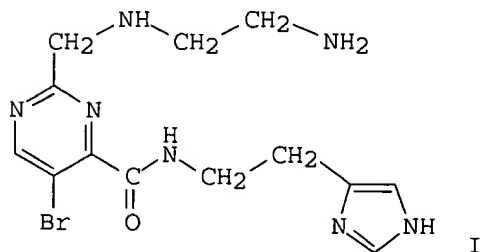
SOURCE: Journal of the American Chemical Society (1993), 115(18), 7971-7

CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The spectral properties and chem. are reported of [FeII(PMA)]Cl.MeOH (4) and [FeIII(PMA)]2.DMSO (5; PMAH = I). Under comparable reaction conditions, these 2 complexes give rise to EPR spectra identical to that of activated bleomycin (BLM). Like Fe-BLMs, 4 and 5 promote rapid DNA strand scission with the prodn. of base propenals and exhibit similar sequence specificity. The present complexes comprise a set of mononuclear non-heme Fe complexes that are capable of O₂-activation. As is the case with the Fe-BLMs, stereospecificity is obsd. in the oxo-transfer reactions

09/890,990

by 4 and 5. In addn. to O-O bond scission in the oxo-transfer reactions, a rare example of O-O bond formation is noted in the reaction of 5 with iodosobenzene in presence of a base.

IT 645-49-8, cis-Stilbene

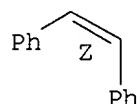
RL: RCT (Reactant); RACT (Reactant or reagent)

(oxo-transfer reaction of, with iron imidazolylethylpyrimidineamido deriv. complex)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1975:173391 CAPLUS

DOCUMENT NUMBER: 82:173391

TITLE: Separating hydrocarbon mixture

INVENTOR(S): Moser, William R.

PATENT ASSIGNEE(S): Exxon Research and Engineering Co.

SOURCE: U.S., 4 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3847801	A	19741112	US 1972-318876	19721227

PRIORITY APPLN. INFO.: US 1972-318876 19721227

AB Liq. nonolefinic hydrocarbon mixts. (paraffins, isoparaffins, naphthenes, and aroms.) are selectively sepd. by contacting the liq. mixt. with NO [10102-43-9] at 100-225.degree. and 100-300 psi to form a nitrated compd. and isolating the nitrated compd., to leave behind an effluent. The process steps are repeated successively until either the nitrated compd. formed is that of the particular constituent which has the highest reactivity with NO or the effluent comprises substantially a single, unreacted constituent, which is recovered by flash distn. Thus, a synthetic fuel blend contg. hexane [110-54-3], heptane [142-82-5], benzene [71-43-2], and toluene [108-88-3] having a research octane no. (RON) of 59 was reacted with NO at 165.degree. at 110 psi initial pressure. After 30% conversion, the hydrocarbon fraction had a compn. equiv. to a RON of 75.

IT 645-49-8

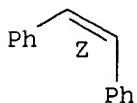
RL: RCT (Reactant); RACT (Reactant or reagent)

(nitration of, by **nitric oxide**)

RN 645-49-8 CAPLUS

CN Benzene, 1,1'-(1Z)-1,2-ethenediylbis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



09/890,990

=> d his

(FILE 'HOME' ENTERED AT 14:51:17 ON 07 JUN 2003)

FILE 'REGISTRY' ENTERED AT 14:51:32 ON 07 JUN 2003
E STILBENE/CN

L1 1 S CIS-STILBENE/CN

FILE 'CAPLUS' ENTERED AT 14:53:34 ON 07 JUN 2003

L2 3 S L1/THU

FILE 'REGISTRY' ENTERED AT 14:54:24 ON 07 JUN 2003

FILE 'CAPLUS' ENTERED AT 14:54:24 ON 07 JUN 2003

L3 1922 S L1

L4 253 S NITRIC OXIDE INHIBITOR?

L5 0 S L3 AND L4

L6 78079 S NITRIC OXIDE

L7 4 S L3 AND L6